

AMENDMENTS TO THE CLAIMS

Amendments to the Claims

1. (Previously Presented) A method of enhancing fault tolerance of a software system, the software system comprising a plurality of active processes executed in an active processor domain, the method comprising the steps of:
 - generating an active message for processing by the active processor domain;
 - generating a modified active message by providing an active time indicator associated with the active message for each of the plurality of active processes;
 - generating a stand-by message for processing in a stand-by processor domain, the stand-by processor domain comprising a plurality of stand-by processes;
 - generating a modified stand-by message by providing a stand-by time indicator for each of the plurality of stand-by processes in the stand-by domain;
 - generating a statistical characteristic for the modified active message; and
 - based on the statistical characteristic, interchanging the stand-by processor domain with the active processor domain.
2. (Previously Presented) The method of claim 1 further comprising the step of determining a status of the active processor domain in response to the active time indicator.
3. (Previously Presented) The method of claim 2 wherein a respective active time indicator is associated with each process of the plurality of processes, and wherein the step of determining the status of the active processor domain is responsive to more than one of the active time indicators.
4. (Original) The method of claim 1 wherein the active time indicator comprises a time-stamp indicating the time the at least one process completed processing the active message.
5. (Original) The method of claim 1 wherein the active time indicator comprises a time-stamp indicating the time elapsed while the at least one process processed the active message.
6. (Canceled).

7. (Previously Presented) The method of claim 1 wherein the step of determining the statistical characteristic comprises generating a time average of the duration of the at least one process of the plurality of processes for a plurality of active messages.
8. (Previously Presented) The method of claim 7 wherein the step of determining statistical characteristic comprises generating a standard deviation from the time average.
9. (Canceled)
10. (Previously Presented) The method of claim 1, further comprising the step of determining a status of the stand-by processor domain in response to the stand-by time indicator.
11. (Previously Presented) The method of claim 10 wherein a respective stand-by time indicator is associated with each process of the plurality of stand-by processes of the stand-by domain and wherein the step of determining the status of the stand-by processor domain is responsive to at least two of the stand-by time indicators.
12. (Canceled).
13. (Previously Presented) A system for enhancing fault tolerance of a software system comprising:
 - an active processor domain, the active processor domain having at least one active processor, the at least one active processor executing at least one active process, the at least one active process receiving an active message and generating a modified active message in response thereto;
 - an active time-stamp mechanism in communication with the at least one active process and for providing an active time indicator for each of the at least one active processor for use in generation of the modified active message;
 - a stand-by processor domain, the stand-by processor domain having at least one stand-by processor, the at least one stand-by processor executing at least one stand-by process, the at least one stand-by process receiving a stand-by message and generating a modified stand-by message in response thereto;
 - a stand-by time-stamp mechanism in communication with the at least one stand-by

process and for providing a stand-by time indicator for use in generation of the modified stand-by message; and

a redundancy manager in communication with the active processor domain and the stand-by processor domain, the redundancy manager interchanging, based on a statistical characteristic for the modified active message, the active processor domain with the stand-by processor domain.

14. (Previously Presented) The method of claim 13 wherein the redundancy manager determines a status of the active processor domain in response to the active time indicator.
15. (Previously Presented) The method of claim 13 wherein the active time indicator comprises a time-stamp indicating a time at which the at least one process completes processing the active message.
16. (Previously Presented) The method of claim 13 wherein the active time indicator comprises a time-stamp indicating the time elapsed while the at least one active processor processes the active message.
17. (Previously Presented) The method of claim 14 wherein the redundancy manager determines the status of the active processor domain in response to the statistical characteristic.
18. (Previously Presented) The method of claim 17 wherein the statistical characteristic comprises a time average of the duration of the at least one active process.
19. (Previously Presented) The method of claim 18 wherein the statistical characteristic comprises a standard deviation of the duration of the at least one active process.
20. (Canceled).
21. (Canceled).
22. (Canceled).
23. (Previously Presented) The method of claim 1, wherein generating the active message includes

generating an active message having a list of the plurality of active processes that are to receive the active message.

24. (Previously Presented) The method of claim 23, including the further step of forwarding the active message to the active processes on the list, to allow respective active processes to generate the modified active message.
25. (Previously Presented) The method of claim 1, wherein interchanging the stand-by processor domain with the active processor domain based on the statistical characteristic, includes comparing the statistical characteristic to a predetermined threshold value.
26. (Previously Presented) The method of claim 1, wherein interchanging the stand-by processor domain with the active processor domain based on the statistical characteristic, includes comparing the statistical characteristic generated for the active processor to the statistical characteristic generated for the stand-by processor.